


INPUT

STRATEGIC MARKET PERSPECTIVE

Procurement Approaches to Systems Integration

Systems Integration Programme–Europe



Digitized by the Internet Archive
in 2015

<https://archive.org/details/procurementappro00unse>

J U L Y 1 9 9 3

PROCUREMENT APPROACHES TO SYSTEMS INTEGRATION

INPUT LIBRARY

INPUT®

London • Paris • Frankfurt • San Francisco • New York • Washington, D.C. • Tokyo

ABOUT INPUT

Since 1974, information technology (IT) users and vendors throughout the world have relied on INPUT for data, objective analysis, and insightful opinions to support their plans, market assessments and technology directions particularly in computer software and services. Clients make informed decisions more quickly and save on the cost of internal research by using INPUT's services.

Call us today to learn how your company can use INPUT's knowledge and experience to grow and profit in the revolutionary IT world of the 1990s.

ANNUAL SUBSCRIPTION PROGRAMS

EUROPEAN AND NORTH AMERICAN MARKET ANALYSIS

Analysis of Information Services, Software and Systems Maintenance Markets
5-year Forecasts, Competitive and Trend Analysis

- 15 Vertical Markets
- 9 Categories of Software and Services
- 7 Cross-Industry Markets
- The Worldwide Market (30 countries)

— EUROPEAN —

- Outsourcing
- Systems Integration
- Customer Services

— U.S. —

- Outsourcing
- Client/Server
- Systems Integration
- IT Vendor Analysis
- EDI / Electronic Commerce
- U.S. Federal Government IT Procurements

CUSTOM CONSULTING

Many vendors leverage INPUT's proprietary data and industry knowledge by contracting for custom consulting projects to address questions about their specific market strategies, new product/service ideas, customer satisfaction levels, competitive positions and merger/acquisition options.

INPUT advises users on a variety of IT planning and implementation issues. Clients retain INPUT to assess the effectiveness of outsourcing their IT operations, assist in the vendor selection process and in contract negotiation/implementation. INPUT has also evaluated users' plans for systems and applications downsizing.

INPUT WORLDWIDE

London—17 Hill Street
London W1X 7FB, England
Tel. +71 493-9335 Fax +71 629-0179

Paris—24, avenue du Recteur Poincaré
75016 Paris, France
Tel. +1 46 47 65 65 Fax +1 46 47 69 50

Frankfurt—Sudetenstrasse 9
D-35428 Langgöns-Niederkleen, Germany
Tel. + 6447-7229 Fax +6447-7327

San Francisco—1280 Villa Street
Mountain View, CA 94041-1194
Tel. (415) 961-3300 Fax (415) 961-3966

New York—400 Frank W. Burr Blvd.
Teaneck, NJ 07666
Tel. (201) 801-0050 Fax (201) 801-0441

Washington, D.C.—1953 Gallows Rd., Ste. 560
Vienna, VA 22182
Tel. (703) 847-6870 Fax (703) 847-6872

Tokyo—Saida Building, 4-6, Kanda Sakuma-cho
Chiyoda-ku, Tokyo 101, Japan
Tel. +3 3864-0531 Fax +3 3864-4114

Abstract

The systems integration market is growing rapidly as organisations exhibit an increasing propensity to subcontract large information systems project rather than undertake projects in-house. This trend has led to a battle for market share between the professional services vendors and the equipment vendors who are gaining market share in this marketplace.

This report analyses the processes by which users purchase systems integration projects. In particular, it considers the attitudes of users towards the various vendor categories by country. User attitudes towards value for money, vendors' ability to manage systems integration projects, and vendors' overall suitability are analysed. The role of external consultants in the buying process is also discussed.

Published by
INPUT
1280 Villa Street
Mountain View
CA 49041
United States

Researched by
INPUT
17 Hill Street
Mayfair
London W1X 7FB
United Kingdom

Systems Integration Programme—Europe

Procurement Approaches to Systems Integration

Copyright (c)1993 by INPUT. All rights reserved.
Printed in the United Kingdom.
No part of this publication may be reproduced or
distributed in any form or by any means, or stored
in a database or retrieval system, without the prior
written permission of the publisher.

The information provided in this report shall be used only by the employees of and
within the current corporate structure of INPUT's clients, and will not be disclosed to
any other organisation or person including parent, subsidiary, or affiliated
organisations without prior written consent of INPUT.

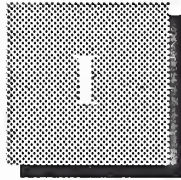
INPUT exercises its best efforts in preparation of the information provided in this report
and believes the information contained herein to be accurate. However, INPUT shall
have no liability for any loss or expense that may result from incompleteness or
inaccuracy of the information provided.

Table of Contents

I	Introduction	I-1
	A. Objectives	I-1
	B. Scope & Methodology	I-1
	C. Report	I-4
	D. Related Reports	I-4
II	Executive Overview	II-1
	A. Systems and Professional Services Vendors Contend for SI Leadership	II-1
	B. Vendors Must Deliver Business Benefits	II-2
	C. Maintain High Profile with External Consultancies	II-3
	D. Improve Image and Perceived Value for Money	II-6
III	Origin of Systems Integration Projects	III-1
	A. Headcount Constraints Drive Adoption of Systems Integration	III-1
	B. Strong Project Management Skills are a Key Requirement	III-2
	C. External Consultants Play Major Role in Project Definition	III-6
IV	Users' Selection of Systems Integration Suppliers	IV-1
	A. Capability Demonstration is Imperative	IV-1
	B. Importance of Consultants in SI Project Purchasing	IV-3
	C. Attitudes Towards Vendors Vary Significantly by Country	IV-4
	D. Users Perceive Vendors to Make Excessive Profits	IV-7
V	Systems Integration Contracts—User Management	V-1
	A. Vendor Business Benefits Challenge	V-1
	B. Project Reviews Ensure Value for Money	V-4
VI	Vendor Issues and Strategies	VI-1

List of Exhibits

I	-1 Products/Services in Systems Integration Projects	I-3
II	-1 Achievement of Project Objectives	II-2
	-2 Role of External Consultants	II-3
	-3 Importance of Services, Systems Integration, Europe	II-5
	-4 User Perceptions of Vendor Suitability, Europe	II-6
	-5 User Perceptions of Vendor Suitability by Country	II-7
	-6 Pricing Pressures at the Final Negotiation	II-8
III	-1 Principal Reasons for Use of Systems Integration Vendors	III-1
	-2 Services Required of Systems Integrators	III-3
	-3 Service Importance Ratings, Systems Integration, Europe	III-4
	-4 Systems Integration Projects—User Instigation	III-5
	-5 Future Use of Consultants, SI Project Identification & Definition	III-6
IV	-1 Key Vendor Selection Criteria	IV-1
	-2 Use of Consultants—SI Purchasing	IV-2
	-3 Perceived Vendor Suitability	IV-4
	-4 Perceived Effectiveness of SI Project Management	IV-5
	-5 Perceived Value for Money	IV-6
	-6 SI Project Profitability—User Perceptions	IV-7
	-7 Perceived Reasons for High Profitability	IV-7
V	-1 Purchasers Achievement of Fixed Price Contracts	V-1
	-2 Perceived Achievement of Objectives	V-2
	-3 Financial Penalties & Incentives—User Views	V-3
	-4 Good Value for Money Measures	V-4
	-5 Price Negotiation—User Tactics	V-5
VI	-1 Users' Expectations of Systems Integration Contractors	VI-2
	-2 Vendors Strategies for Success in Winning Systems Integration Contracts	VI-3



Introduction

A

Objectives

This report identifies:

- How users identify the need for systems integration projects
- The roles and influence of IS management, non-IS executives and consultants
- How systems integration suppliers are selected and managed

It examines particularly the roles of consultants, IS management, departmental managers and executive management in project definition and setting vendor selection criteria. Particular emphasis is placed on understanding the pricing issues, which have characteristics peculiar to the systems integration market.

B

Scope & Methodology

Systems integration is a business offering that provides a complete solution to an information system, networking or automation requirement through the custom selection and implementation of a variety of information systems products and services. A systems integrator is responsible for the overall management and control of a systems integration contract, and is the single point of contact and responsibility to the buyer for the delivery of the specified system function to the agreed schedule and price.

As listed in Exhibit I-1, the components of a systems integration project are the following:

- *Equipment* - includes information processing and communications equipment required to build the systems solution. This component may include custom, as well as off-the-shelf equipment, to meet the unique needs of the project. The systems integration equipment category excludes turnkey systems by definition.
- *Software products* - include prepackaged applications and systems software products.
- *Professional services* - includes the value-added component that adapts the equipment and develops, assembles or modifies the software and hardware to meet the system's requirements. It includes all of the professional services activities required to develop, implement, and if included in the contract, operate an information system, including consulting, programme/project management, design and integration, software development, education and training, documentation and systems operations and maintenance.
- *Other services* - Most systems integration contracts include other services and product expenditures that are not classified elsewhere. This category includes miscellaneous items such as engineering services, automation equipment, computer supplies, business support services and supplies, and other items required for a smooth development effort.

EXHIBIT I-1

Products/Services in Systems Integration Projects

<ul style="list-style-type: none"> • <i>Equipment</i> <ul style="list-style-type: none"> - Information systems - Communications
<ul style="list-style-type: none"> • <i>Software Products</i> <ul style="list-style-type: none"> - Systems software - Applications software
<ul style="list-style-type: none"> • <i>Professional Services</i> <ul style="list-style-type: none"> - Consulting <ul style="list-style-type: none"> • Feasibility and trade-off studies • Selection of equipment, network and software - Programme/project management - Design/integration <ul style="list-style-type: none"> • Systems design • Installation of equipment, network and software • Demonstration and testing - Software development <ul style="list-style-type: none"> • Modification of software packages • Modification of existing software • Custom development of software - Education/training and documentation <ul style="list-style-type: none"> • Systems operations/maintenance
<ul style="list-style-type: none"> • <i>Other Miscellaneous Products/Services</i> <ul style="list-style-type: none"> - Site preparation - Data processing supplies - Processing/network services - Data/voice communication services

This report is based on a study of systems integration contracts in Europe. Interviews were conducted with users who were questioned about the purchasing and management of a recent systems integration project. Inter-country comparisons are made when possible. Where there are no meaningful country differences, or data is insufficient to make comparisons meaningful, results are consolidated to give a single European perspective.

The profile of the interviews is as follows:

- France - 8 users
- Germany - 6 users
- United Kingdom - 15 users
- Italy - 10 users.

C

Report

Chapter II is the Executive Overview and contains a summary of users' attitudes towards the purchasing of systems integration projects.

Chapter III analyses the process by which systems integration projects are identified and the importance users attach to the various service components.

Chapter IV analyses the process by which users select systems integration vendors and users' attitudes towards the various types of supplier.

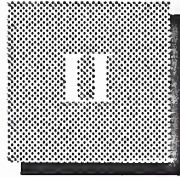
Chapter V considers users' management of systems integration projects and the degree to which they perceive their objectives have been met.

Chapter VI summarises some of the strategies which vendors may adopt to increase their success in winning systems integration projects.

D

Related Reports

- *Systems Integration Markets, Europe 1993-1998*
- *Impact of Downsizing on Systems Integration, Europe 1992-1997*
- *Systems Integration Vendor Analysis, Europe 1992*
- *Methods for Successful Systems Integration Projects, Europe, 1992.*



Executive Overview

A

Systems and Professional Services Vendors Contend for SI Leadership

The systems integration market is one of the fastest growing sectors of the European IT market, with a forecast growth rate of 19% over the next five years. It is a complex market where professional services vendors compete for what they believe is their rightful inheritance, while equipment vendors view this as a major opportunity for them to diversify away from the hardware business with its declining margins. Because the business and technology issues addressed in systems integration projects are often both large and complex, there is often a role for consultants, who recognise this as a potentially lucrative area.

However, the major battle for market share is between the equipment vendors and the professional services vendors.

Success will be achieved by those vendors who can:

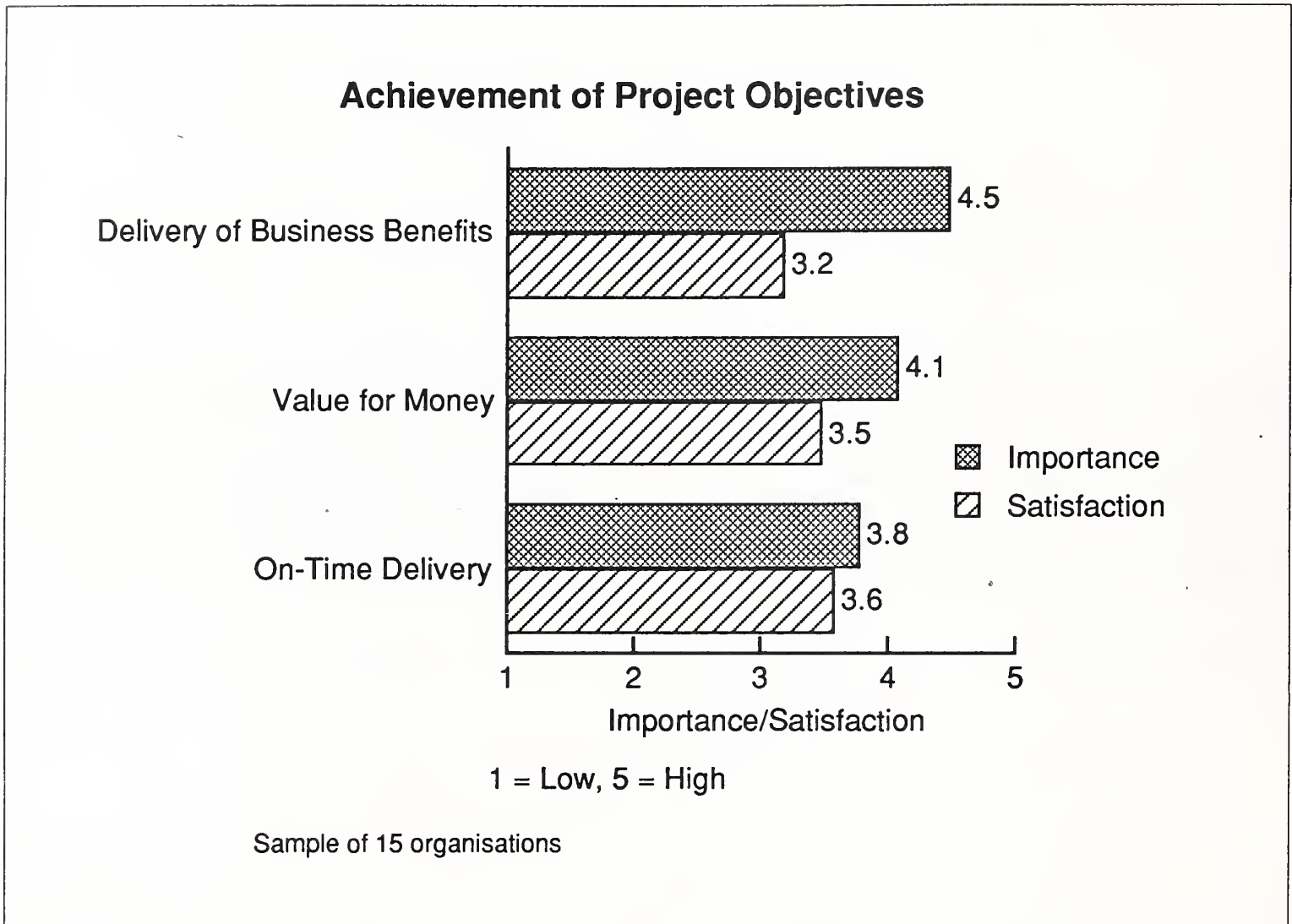
- Demonstrate the delivery of business benefits to clients
- Influence, or by-pass, the consultancies assisting users in purchasing systems integration projects
- Improve users' perceptions of their suitability as prime contractors and the value for money offered by their services.

B

Vendors Must Deliver Business Benefits

Exhibit II-1 shows the importance users attach to a number of key project objectives together with their current satisfaction levels.

EXHIBIT II-1



The most important objective for purchasers is to achieve the required business benefits, yet this remains the least satisfactorily achieved objective.

One contributory factor to this may be users' frequent insistence on separating the project definition and specification stage from the development and implementation of the information system. A previous INPUT study—Methods for Successful Systems Integration Projects, Europe, 1992—estimated that vendor personnel are involved in the production of the business specification for only 27% of systems integration projects.

Clearly, vendors need to increase this proportion if they are to take responsibility for identifying and delivering business benefits to the client organisation.

While an adversarial relationship exists between client and vendor, it will remain difficult for vendors to deliver the expected business benefits. The application of techniques, such as business re-engineering, requires both client and vendor to work in close partnership prior to any systems specification being developed.

In the future, those vendors that can successfully integrate management consultancy and systems implementation skills will be most successful in the systems integration market.

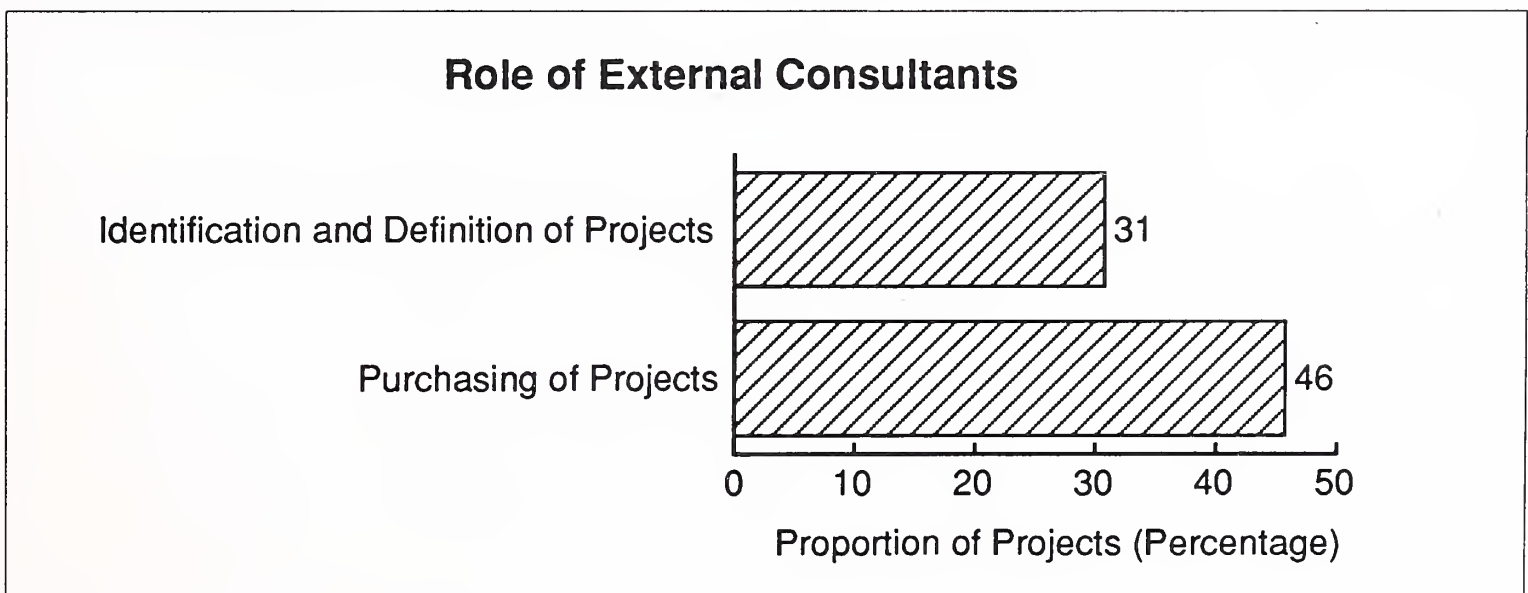
C

Maintain High Profile with External Consultancies

Exhibit II-2 shows the extent to which external, third-party consultants are involved in:

- The identification and definition of systems integration projects
- The purchasing of projects

EXHIBIT II-2



This high level of usage of external consultants has powerful implications for systems integration vendors.

Firstly, it is clear that users have a strong need for assistance in the identification and definition of major projects. Vendors must become more involved in these processes, both to protect their own revenue streams and to ensure that users achieve business benefit and value for money from these projects.

The scale of the opportunity is immense. Business process re-engineering has become one of the clichés of modern business but can rarely be achieved without substantial changes to information systems. It is a management tool more often discussed than used because the scale of the task is so vast that it often transcends the capability of a single organisation.

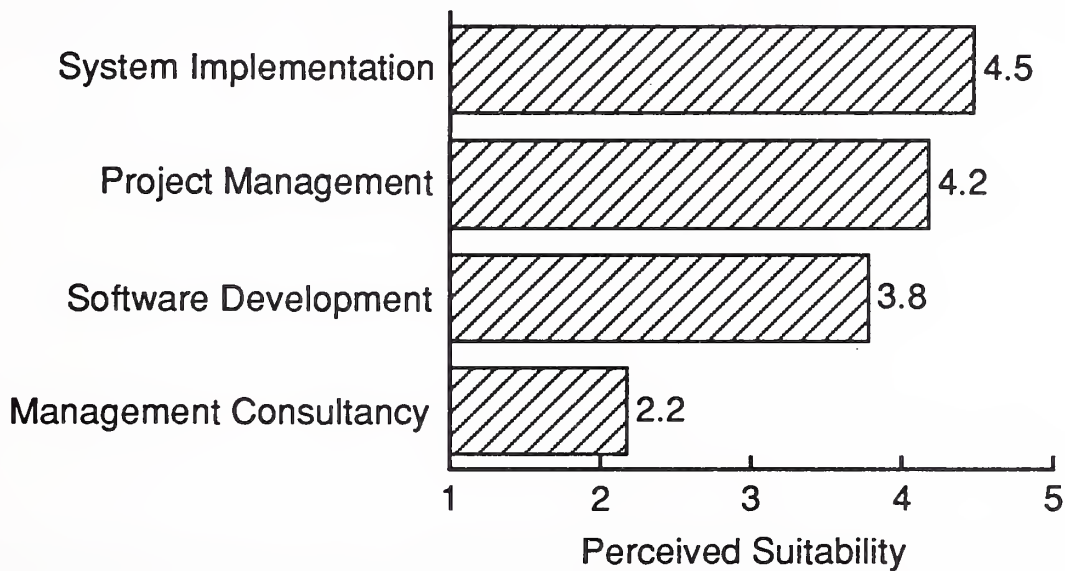
Here lie the greatest opportunities for systems integration contractors capable of identifying novel applications of information technology to either solve business problems or re-engineer business processes.

Secondly, users recognise the risks involved in these large projects and are rightly circumspect in their appointment of contractors. Nonetheless, the sheer scale and complexity of the systems needed to cope with change in a large business in a timely manner are beyond the scope of most in-house IS departments. Businesses are therefore compelled to seek outside assistance.

However, because of the difficulties inherent in evaluating vendor capabilities and the perception that vendors make excessive profits in undertaking systems integration projects, users utilise external consultants for assistance in the purchasing process. In response, vendors must establish good working relationships and high levels of credibility with the major independent consultancies.

Exhibit II-3 shows the importance users attach to some of the leading components of systems integration projects.

EXHIBIT II-3

Importance of Services, Systems Integration, Europe

1 = Not Suitable, 5 = Very Suitable

Sample of 24 respondents

Users attach most importance to the successful implementation of the project. They perceive that a successful implementation is most likely to be achieved if the vendor has considerable expertise in project management and software development.

Management consultancy currently receives a low importance rating from users. Two factors may contribute to this low rating. Firstly, users currently separate out the project identification and definition stage from the systems integration project and use separate vendors for each stage.

Secondly, although management consultancy is a very important aspect of business re-engineering projects, not all systems integration projects involve a major review of business processes. Nonetheless, vendors need to encourage users to conduct reviews of their business processes and to involve their own consultants prior to specifying large information systems projects.

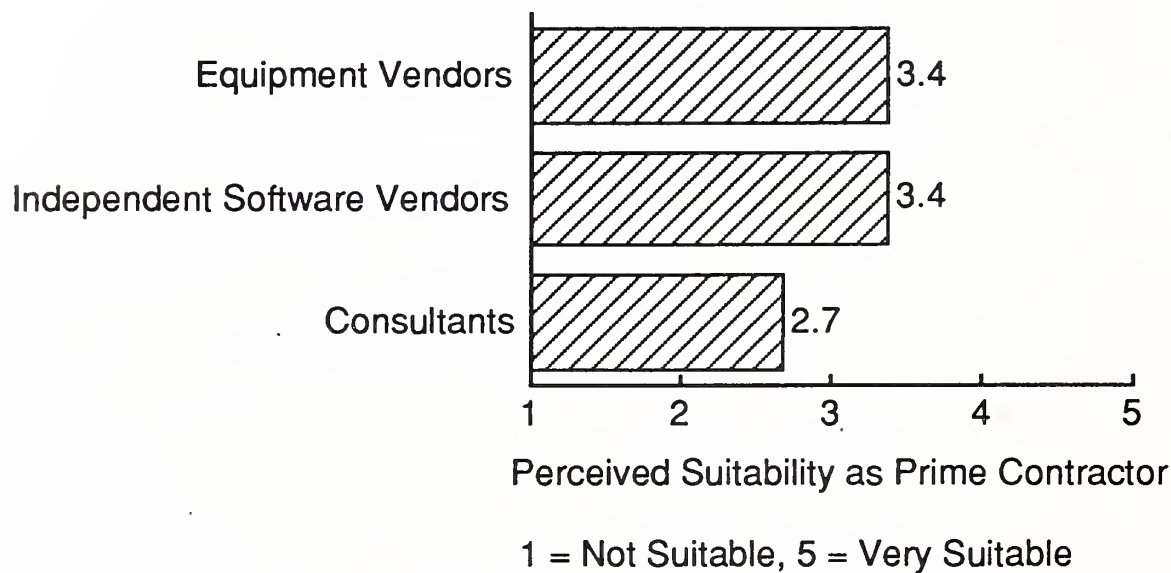
D

Improve Image and Perceived Value for Money

Exhibit II-4 shows users' current perceptions of the suitability of the various types of vendor as prime contractors for systems integration projects.

EXHIBIT II-4

User Perceptions of Vendor Suitability, Europe



Sample of 37 respondents

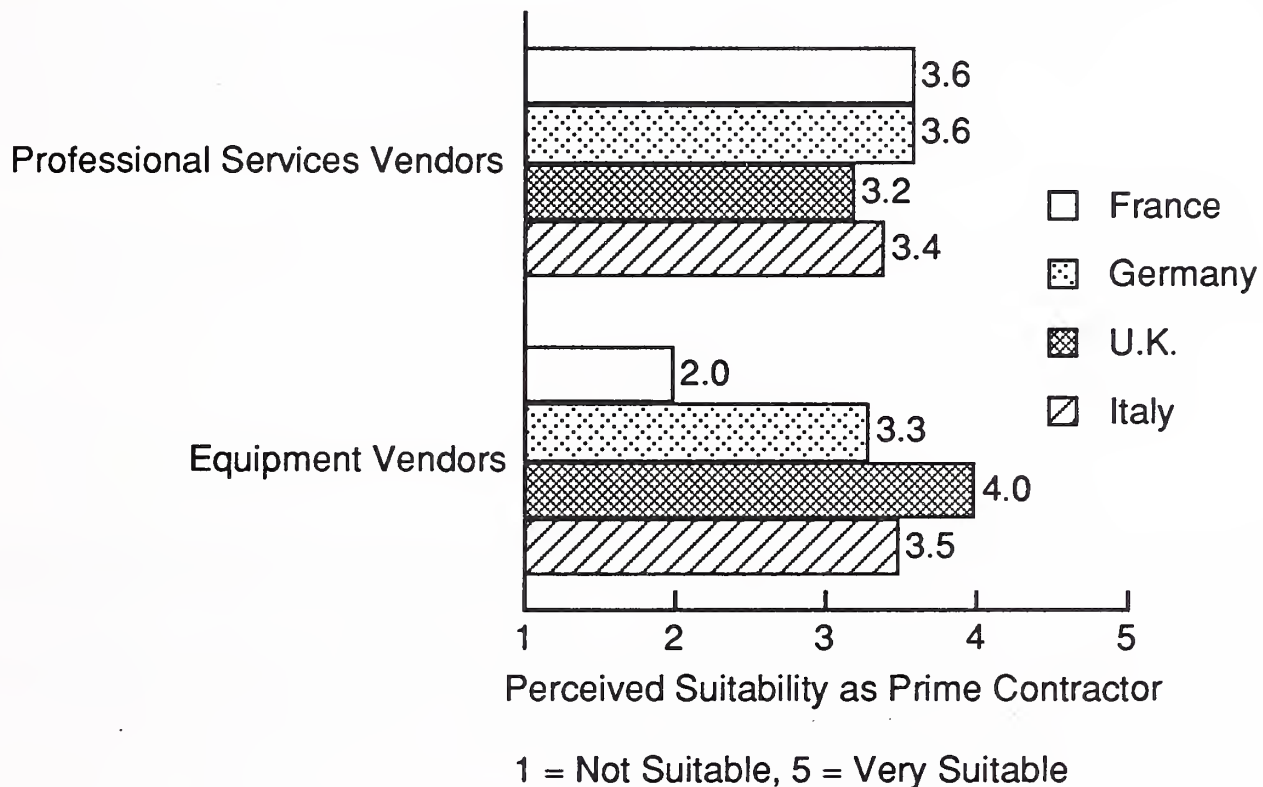
Overall, professional services vendors and equipment vendors are seen to be equally suitable. Both groups of vendors receive a rating which indicates a level of competence, but also provides appreciable scope for improvement.

Consultants achieved a much lower rating. Consultants achieved poor ratings in Germany, the United Kingdom and Italy. However, consultants were rated highly in France where senior executives play a more important role in systems integration project identification and vendor selection than elsewhere. One perennial problem for consultants is that they are perceived to offer comparatively low value for money compared to the other vendor groupings.

Although users' perceptions of the merits of professional services vendors and equipment vendors are similar across Europe in aggregate, they vary considerably from country to country, as shown in Exhibit II-5.

EXHIBIT II-5

User Perceptions of Vendor Suitability by Country



Sample of 37 respondents

The perceived suitability of the professional services vendors shows a level of consistency across each country. However, the perceived level of suitability of the equipment vendors varies considerably with the result that:

- The professional services vendors are viewed as much more suitable prime contractors for major projects in France.
- The equipment vendors have developed a significantly more positive image than the professional services vendors in the United Kingdom.

The question remains as to how these trends will develop over the next few years. At present, the systems integration revenues of the equipment vendors are growing more rapidly than those of the professional services vendors, and the size and market presence of the equipment vendors gives them an advantage over the professional services vendors in the systems integration market.

As responsibility for the purchasing decisions for systems integration projects moves away from IS professionals, the market will tend to favour those vendors with relevant business and industry knowledge.

The user's overwhelming requirement is for the vendor to provide skills or resources unavailable within the user's own organisation. These skills are often specific to the business problem being tackled and usually require a high degree of business skill, as well as traditional technical skills.

A key test of the supplier's confidence comes when he is asked to provide a fixed price contract. This is demanded in nearly three-quarters of project identified. Confidence, however, is not sufficient. The purchaser also wants to be satisfied that the vendor has sufficient financial strength to underwrite the fixed price contract if the project does not go to plan.

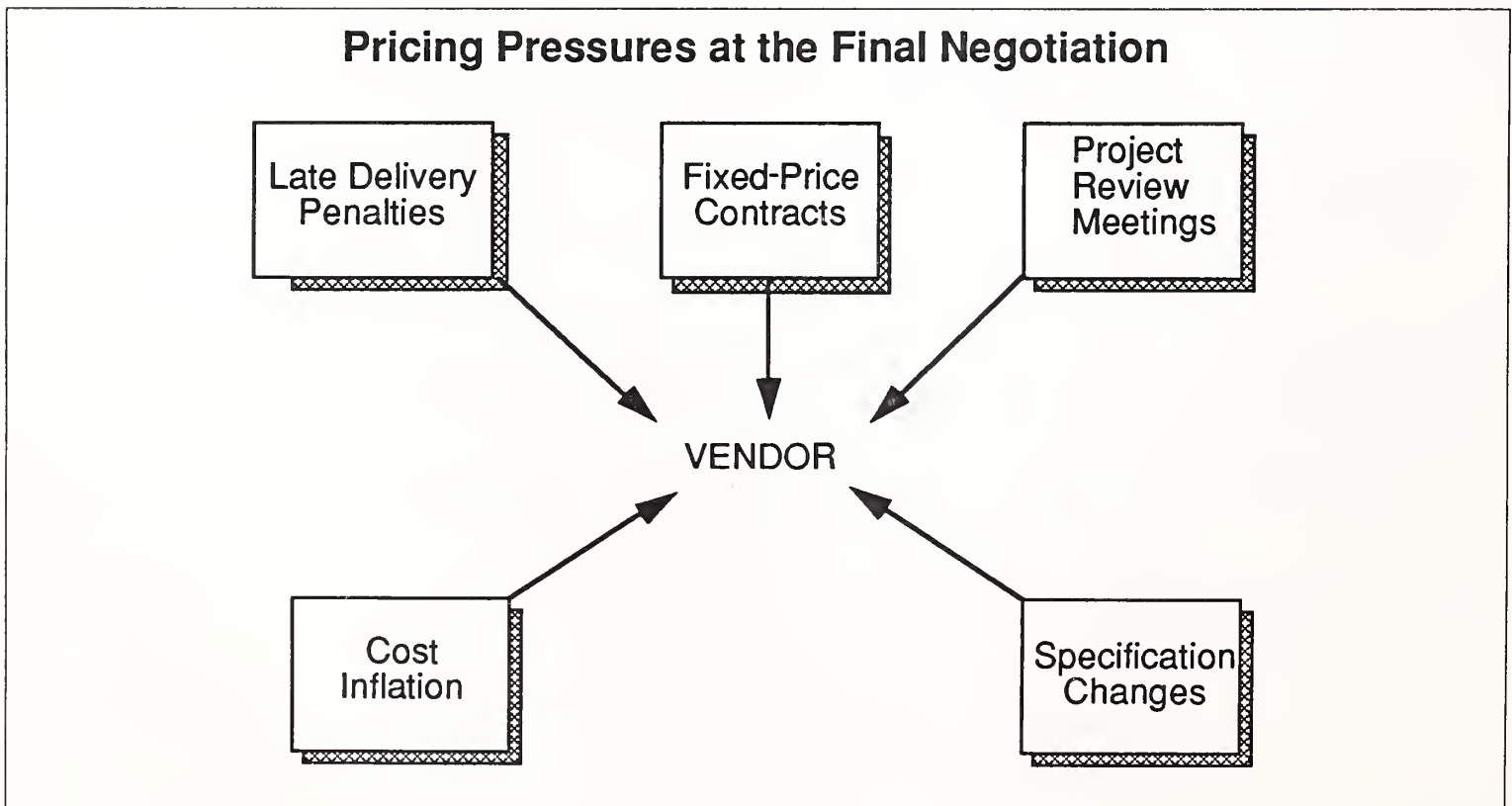
Not that purchasers rely on this. The most common measure which users take to ensure that they are receiving good value for money is to hold regular review meetings with the vendor to monitor the progress of costs. One respondent commented pragmatically that:

"It's no good bankrupting the supplier before the project is completed".

Users are very aware of the risks involved in large systems integration projects and take all reasonable steps to manage that risk, whatever guarantees the vendor might have offered. This is not surprising.

Price is an important issue in negotiating integration projects, but it does not always take the form which vendors perceive. Exhibit II-6 shows the main sources of financial pressure on the vendor.

EXHIBIT II-6

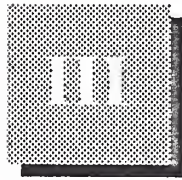


Notably absent from this chart is competitive pricing from other vendors.

Although vendors often perceive themselves to be under price pressure from competitors, this is rarely the case. What is more common is that the purchaser has a perception that ALL vendors achieve excess profits on large systems integration projects and try to force a lower price expectation on their vendors to compensate. Comparisons with other vendors are often spurious because the primary selection has already been made on the basis of the vendors' expertise, resources and responsiveness. The threat of lower prices from competitors in these cases is merely a means of warning the supplier to keep his price within reasonable limits.

Vendors' inability to compete on price often indicates a lack of relative capability in the particular industry/application area concerned, and hence a lack of suitable building blocks and software products.

(Blank)



Origin of Systems Integration Projects

The key questions addressed in this section are:

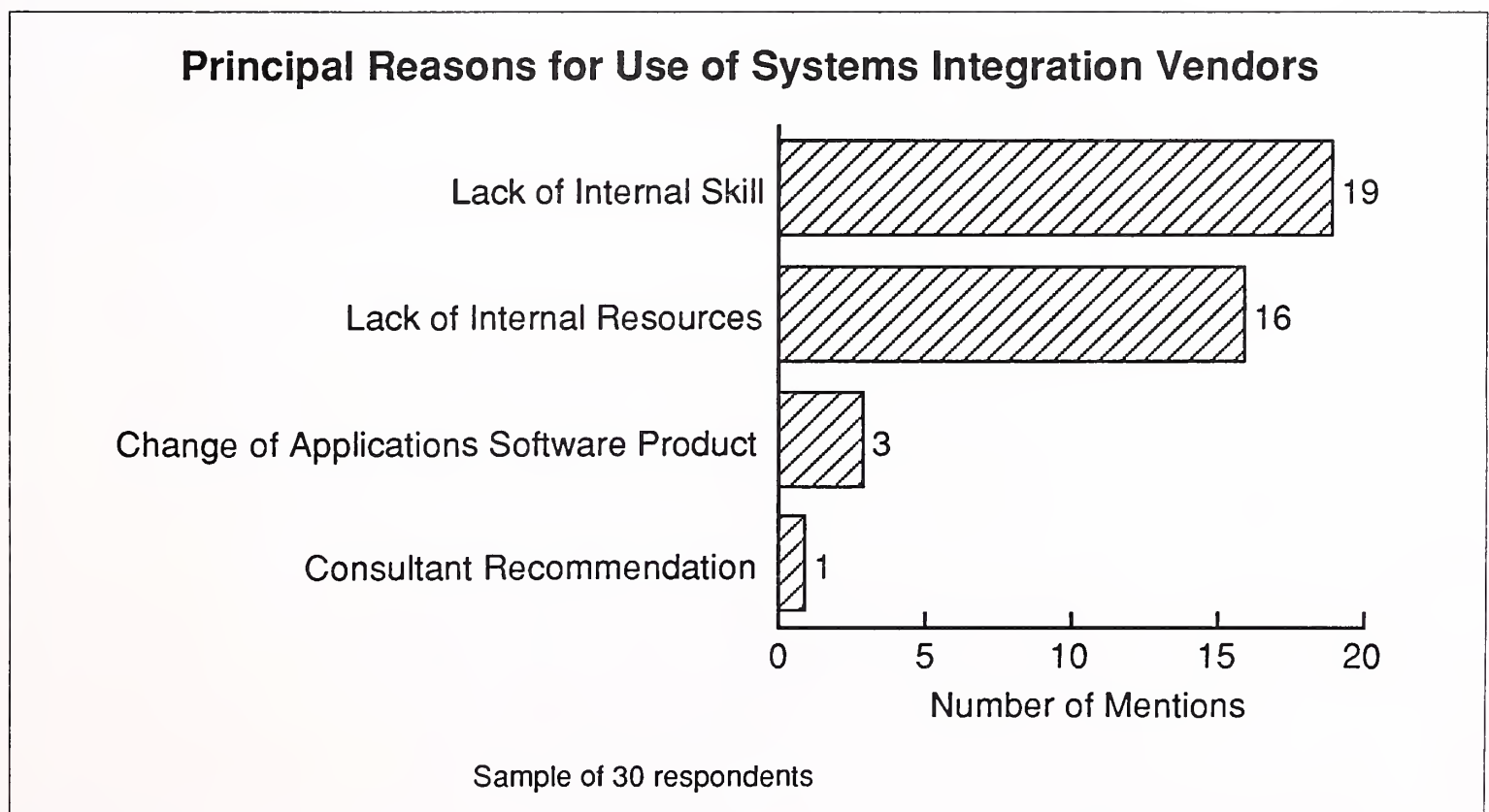
- Why are systems integration projects placed with outside suppliers?
- What services are required of systems integration contractors?
- What is the role of consultants in the project definition?

A

Headcount Constraints Drive Adoption of Systems Integration

Exhibit III-1 shows the principal reasons which users gave for using outside suppliers for systems integration projects.

EXHIBIT III-1



It is clear that the most important reasons are pragmatic ones: the user is buying skills or resources which are not available within his own organisation. Issues of internal politics, such as the often quoted stresses between senior executives and IS management are not apparent in these results. That is not to say that such stresses do not exist.

In many organisations, there is a reluctance to increase the headcount of the in-house IS department. Many organisations, in addition, have a corporate policy of transferring the control of information systems from the IS department to end-users. The net result of these trends is that companies no longer have the levels of resource or expertise to enable major development projects to be performed in-house. Accordingly, the role of the in-house IS department is moving from one of principal development resource to one of managing the interface between end-users and external suppliers.

This trend is most noticeable where a previously centralised IS department has been decentralised and staff-allocated to specific end-user departments. In these instances, the overall internal IS personnel resources within the company have often been reduced by 30% or more.

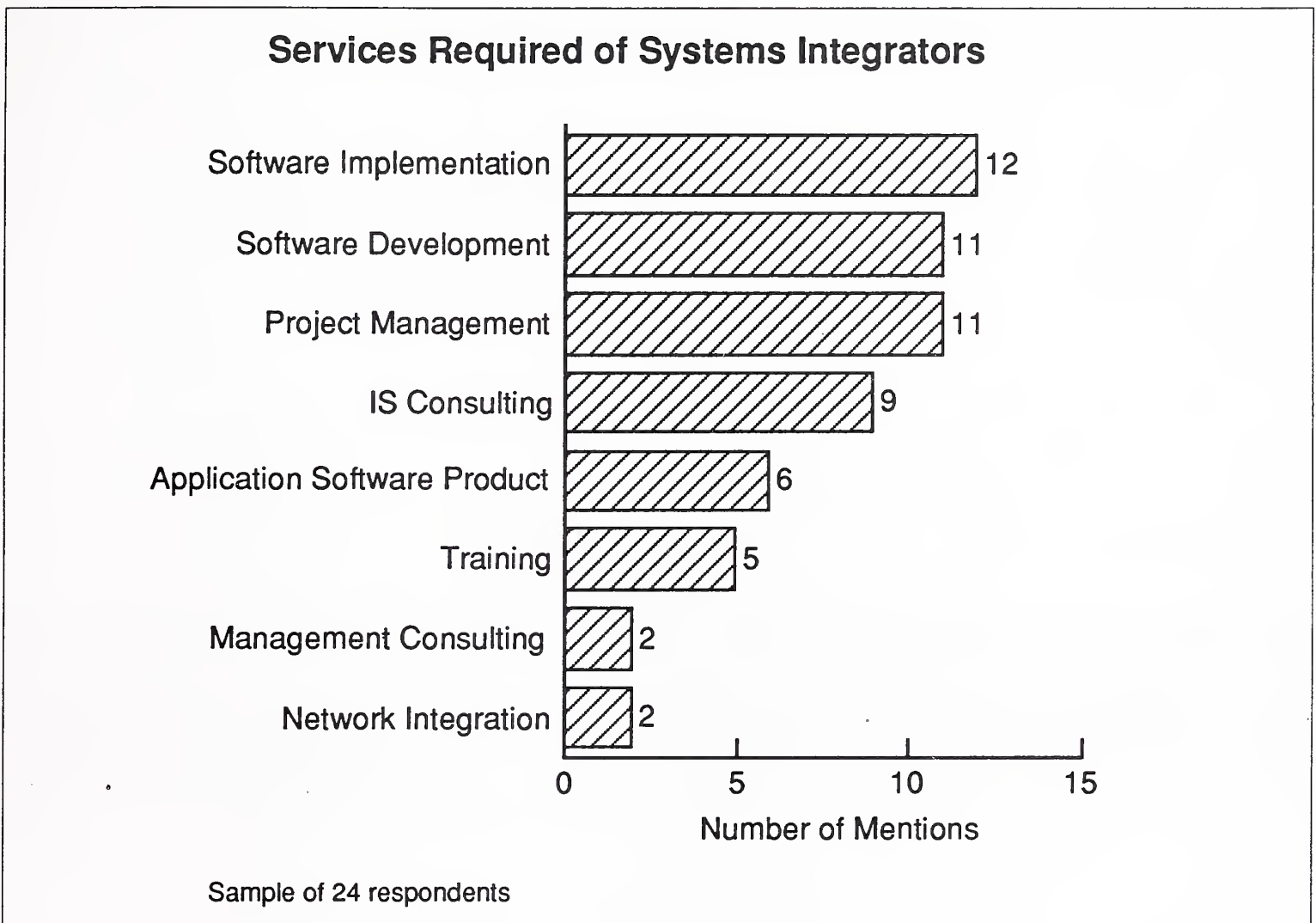
A contractor offering specific skills appears to have roughly twice as much chance of being selected for a project where those skills are relevant as one offering only general technical skills. The nature of those skills is explored in more detail later. In general, however, there is no doubt that users are increasingly seeking to address the IS issues of business problems in a holistic manner, requiring that contractors be able to contribute to defining the solution, as well as implementing it.

B

Strong Project Management Skills are a Key Requirement

The particular services required of systems integrators are shown in Exhibit III-2.

EXHIBIT III-2



The main issues are software-related, followed by Project Management and IS Consultancy.

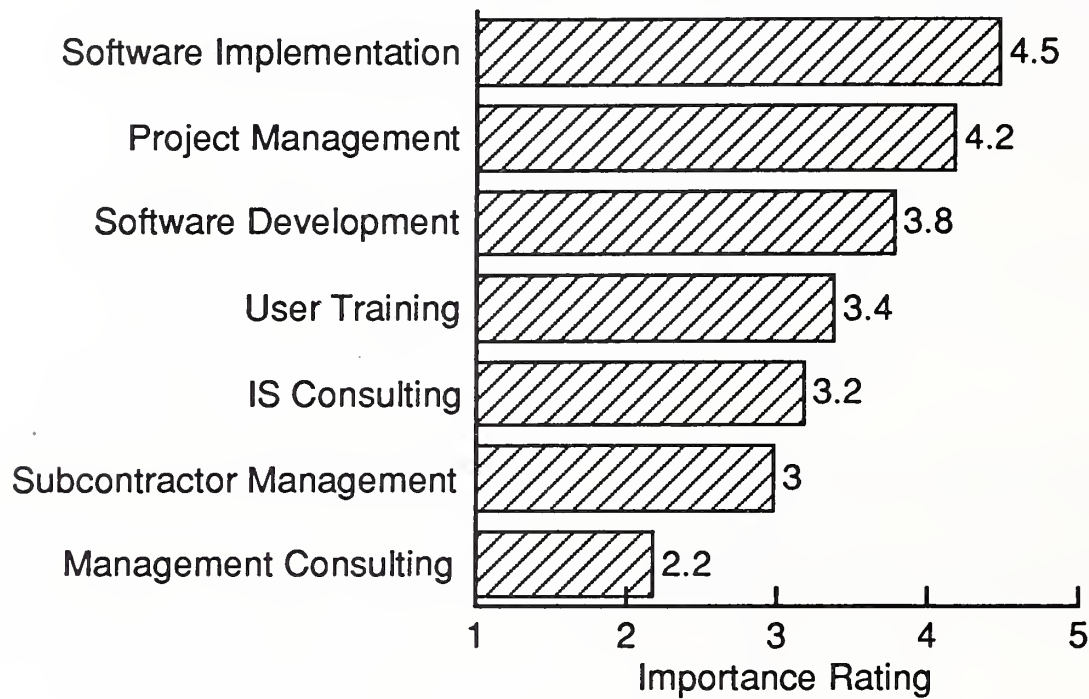
Management consultancy received a low number of mentions overall. However, there are signs of an increasing need for management consultancy in the United Kingdom, possibly reflecting the emergence of the trend towards business process re-engineering. In order to address business process re-engineering projects, it is desirable for systems integration vendors to have access to traditional management consultancy skills, such as competitive benchmarking, process redesign and change management expertise.

Network-related services also received a low number of mentions. However, networking and multivendor capabilities are becoming essential areas of expertise for systems integrators, as organisations begin to move to client/server architectures and begin to link previously discrete information systems on heterogeneous equipment.

The services which respondents identified in Exhibit III-2, as required from systems integration suppliers, can be compared with the importance which they attached to services (Exhibit III-3).

EXHIBIT III-3

Service Importance Ratings, Systems Integration, Europe



1 = Not Important, 5 = Very Important

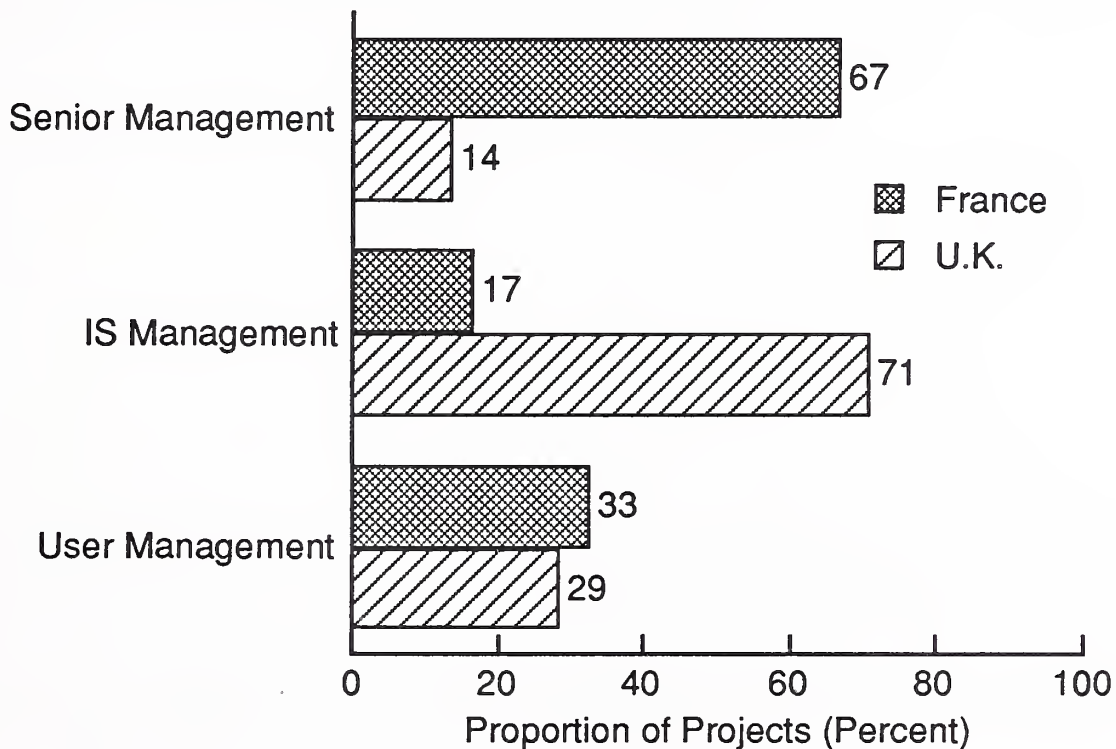
Sample of 24 respondents

Whilst software development and implementation are the most commonly cited requirements, the most important elements are those concerned with having the system implemented and the project successfully managed.

The people involved in identifying and defining major Systems Integration projects are more likely to be senior managers or IS managers than managers of user departments (Exhibit III-4).

EXHIBIT III-4

Systems Integration Projects—User Instigation



Sample of 15 organisations

This illustrates the strategic nature of these SI projects and the degree of complexity involved. Whilst department managers are playing an increasing role in the development of operational systems, they are less actively involved in identifying or defining major IS projects which extend beyond the organisation's current capabilities.

A significant difference exists between senior managers in France and the U.K. Whilst French senior managers clearly dictate their companies' policies on IS matters, their U.K. counterparts are more likely to leave IS matters to IS management. This obviously has significant implications for vendors selling to these different markets.

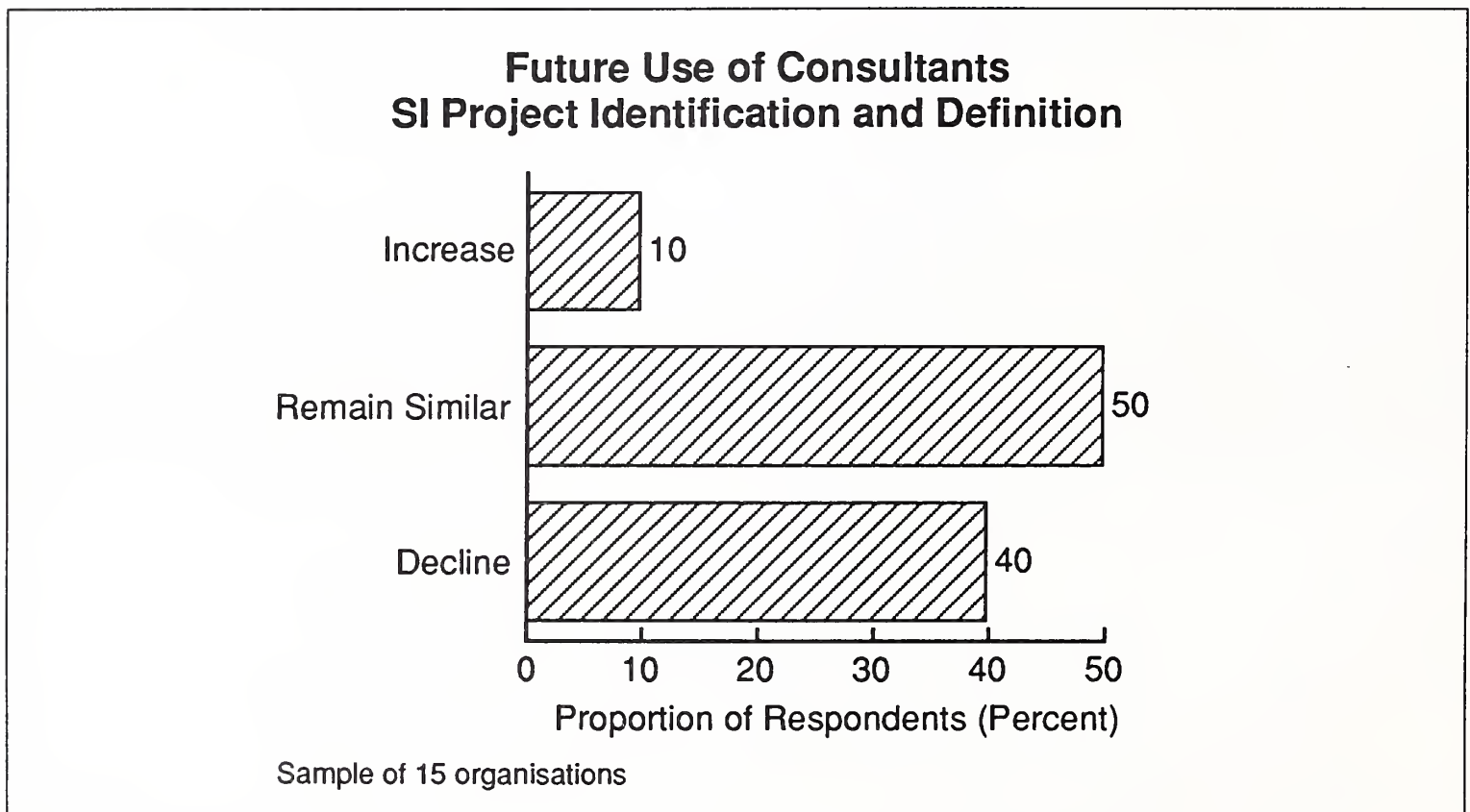
C

External Consultants Play Major Role in Project Definition

Approximately one-third of all organisations questioned had used external consultants to help in the identification or definition of their most recent SI projects, but nearly half of them expected their future use of consultants to decline.

Exhibit III-5 identifies users' expectations regarding their future use of external consultants in these roles.

EXHIBIT III-5



The most common complaint against external consultants was their cost. Only 10% of organisations expect their use of consultants to increase in this area in future, compared with 40% expecting a decline.

Since the nature of the systems integration projects is such that they are frequently beyond the in-house capabilities of the user organisation, it is unclear who will provide the project definition skills if consultants are not used. It is consequently uncertain as to what extent the desire to reduce the future use of external consultants will be implemented. There is an opportunity for providers of systems integration services to become more closely involved with their current and future clients at the project definition phase. The contractor gains an opportunity to help set the agenda for both the project definition and subsequent vendor selection by doing so.

The contractor has to have suitably skilled staff to be credible when discussing or proposing new projects.

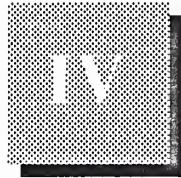
Such an approach is being adopted by those firms that have already recognised that the big opportunities in systems integration come not from answering a detailed Request For Tender but from being able to propose a complete business solution, often one which transcends the vision of the user organisation. An example is IBM's attempt to provide an electronic quotations network for Lloyds dealers and brokers. In cases like these it is necessary to demonstrate a real business understanding to have any hope of winning the contract. Such an approach is becoming common among the large equipment vendors like IBM and Digital (who have traditionally vied for the attention of senior managers as well as IS professionals), consultants with a strong technology capability like Andersen Consulting and sophisticated Software and Services organisations like EDS and Computer Sciences Corporation.

It is clearly difficult for smaller vendors to compete for this kind of business. However, since one-third of all major systems integration contracts start at user management level, there is still a significant opportunity for specialist vendors. There are also opportunities to act as specialist subcontractors on large projects. The key to both types of business for the smaller vendor is a very high degree of industry or application expertise. It is unlikely that technical skills alone will be sufficient in the systems integration markets of the future.

This suggests that the market for large systems integration projects will polarise into two. Candidates for prime contractor will increasingly be those (usually large) vendors capable of combining the basic business and industry expertise required with good project management skills and sound financial standing. There will also be opportunities for vendors with specific vertical market skills, particularly when supported by an established software offering. In addition to providing a complete solution in their specialist areas, they will be required by prime contractors to provide the high level of software sophistication necessary in increasingly business-oriented systems.

The role of generalist vendors in this market looks uncertain. Vendors who rely only on providing technically skilled personnel will increasingly be overlooked by users seeking solutions to business problems.

(Blank)



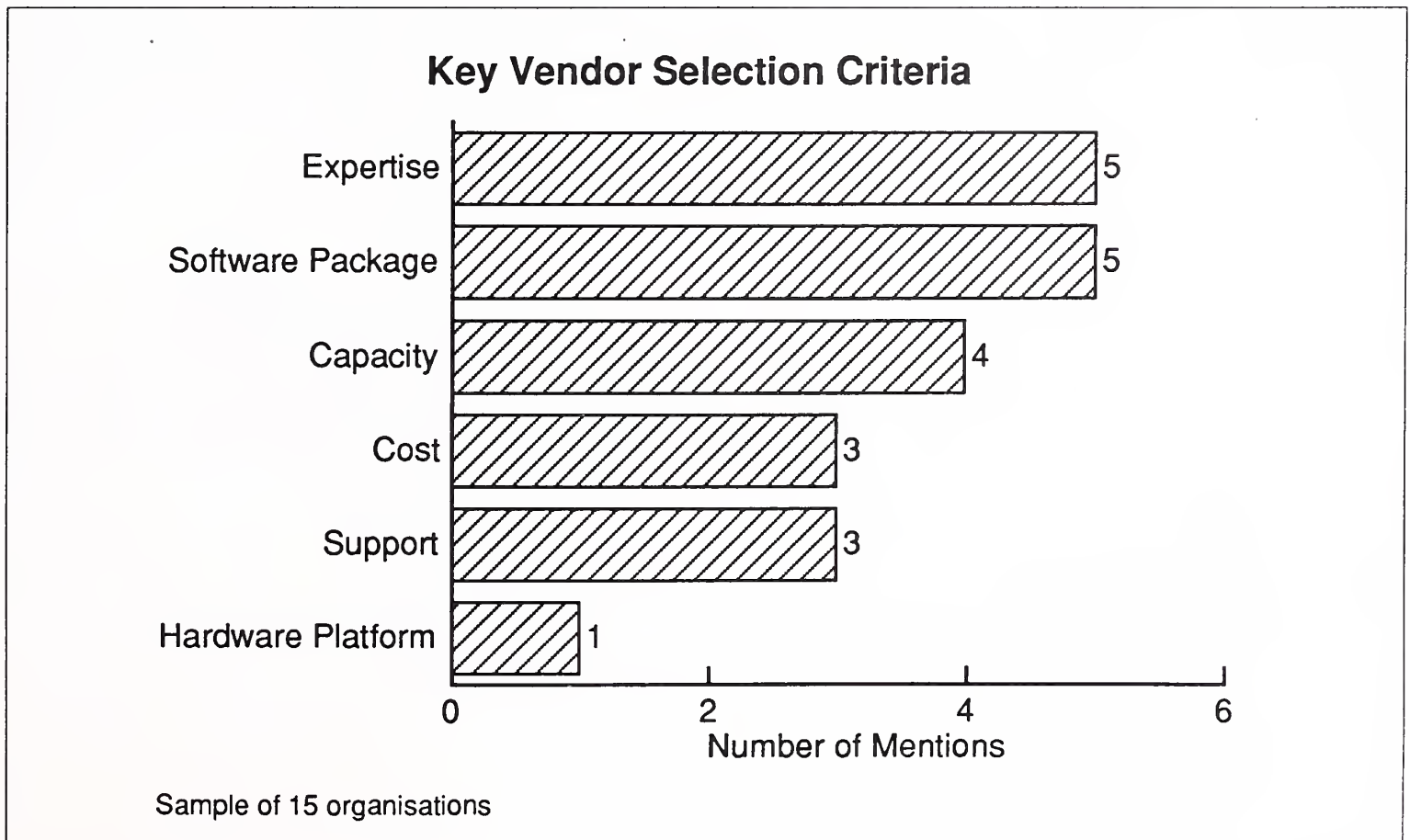
Users' Selection of Systems Integration Suppliers

A

Capability Demonstration is Imperative

The central issues for a user organisation when selecting a systems integration vendor are listed in Exhibit IV-1.

EXHIBIT IV-1



It is important to understand what users mean by expertise. Essentially, they require vendors to demonstrate an understanding of their business and demonstrate that they have the resources and expertise to match the required specification.

Firstly, vendors must demonstrate a high level of understanding of the client's problem, which is increasingly likely to be a business rather than a technical issue. Vendors must then demonstrate that they have successfully solved similar problems in the past and have the necessary management, financial and other resources to be a low-risk option for the client.

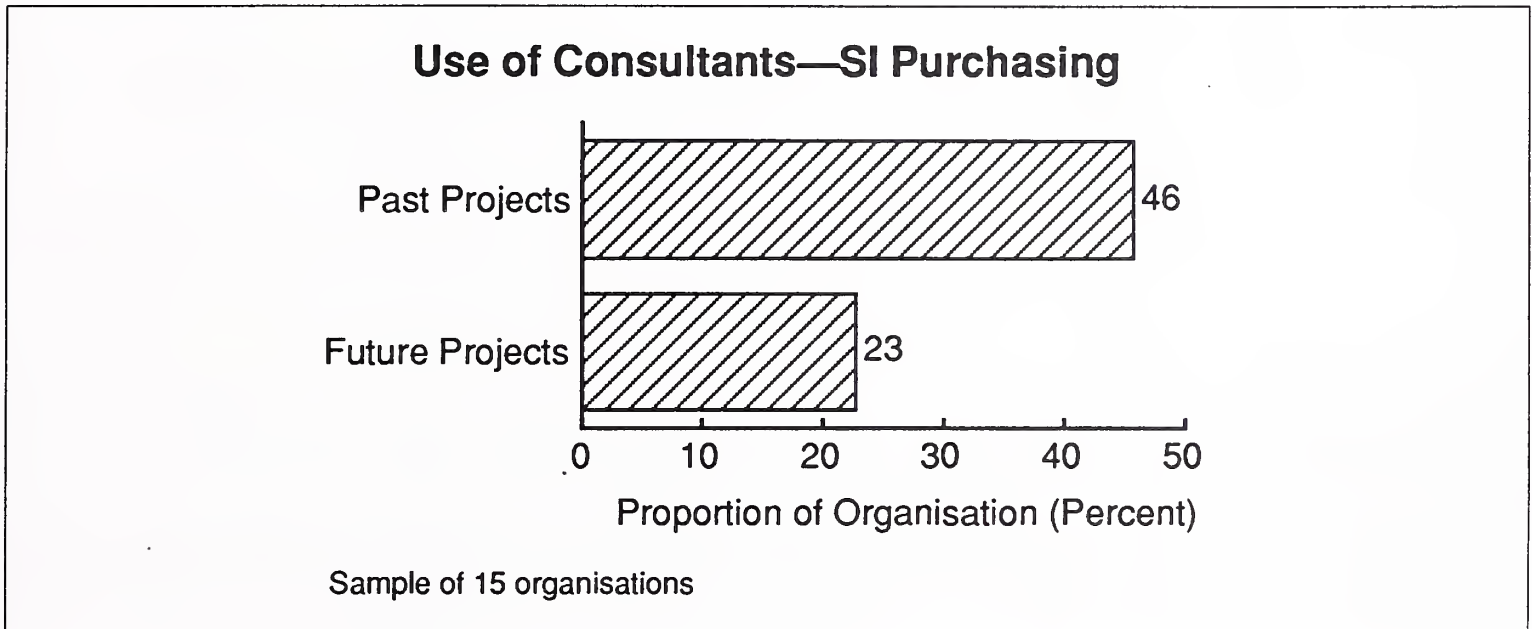
Key attributes which increase the client's confidence in the vendor include:

- Experience in similar projects
- High-calibre project management personnel backed by quality assurance procedures
- A clear demonstration of the capacity to meet the required deadlines
- The vendor's financial strength and perceived industry presence
- Access to and knowledge of software products appropriate to the client's problem
- Successful prototyping
- Flexibility towards the client and a willingness to take overall responsibility.

The key criteria used by purchasers are the vendor's expertise and its ability to offer suitable software packages. This is consistent with the original motivation identified for using Systems Integrators - lack of skills or resources in the user organisation. It is noteworthy that price is not a dominant factor. This is discussed in some detail later, because it is clear that price negotiations can be more difficult than would be expected from these responses.

B**Importance of Consultants in SI Project Purchasing**

Exhibit IV-2 shows the proportion of organisations that currently use consultants to assist them in purchasing systems integration projects and the proportion that plans to use consultants for this purpose in future.

EXHIBIT IV-2

Consultants are used more commonly to help organisations to purchase systems integration projects than to identify or define the original projects. Nearly half of all respondents used consultants to assist in the purchasing of systems integration projects, compared with only one-third who used consultants to help identify or define the projects. So even when an organisation has conducted its own project definition, it often feels the need for help in actually purchasing systems integration services.

In common with the responses noted for the project identification and definition stage, users do not expect to use consultants as much in future as they have in the past. The clear benefit to the purchaser is that he can save the sometimes considerable cost of a consultant. The elimination of an extra link in the communications chain may also help to reduce misunderstandings and improve the link between the definition of a systems integration project and the achievement of the underlying business benefits.

This evidence helps to explain vendors' desires to develop their own consultancy organisations, and to maintain close relationships with the major external consultancies.

Third-party consultancies typically exhibit high levels of risk-adverse behaviour when assisting clients in purchasing major projects. This behaviour tends to give them a built-in bias towards the larger vendor and towards vendors with whom they have favourable prior experience. Such consultancies also tend to favour tried and tested solutions and avoid high levels of innovation.

Accordingly, it is important for systems integration vendors to establish working relationships with the major external consultancies.

Of course, if the vendor can introduce its own consultants to the client at the project identification and specification stage, it may be possible for the vendor to avoid evaluation by third-party consultants entirely at the vendor selection stage.

C

Attitudes Towards Vendors Vary Significantly by Country

Exhibit IV-3 shows users' perceptions of the suitability of various vendor types as prime contractors for systems integration projects.

EXHIBIT IV-3

Perceived Vendor Suitability

Vendor Type / Country	France	Germany	United Kingdom	Italy	Europe
Equipment Vendors	2.0	3.3	4.0	3.5	3.4
Independent Software Vendors	3.6	3.6	3.2	3.4	3.4
Consultants	3.8	2.0	2.5	2.8	2.7

1= Not Suitable

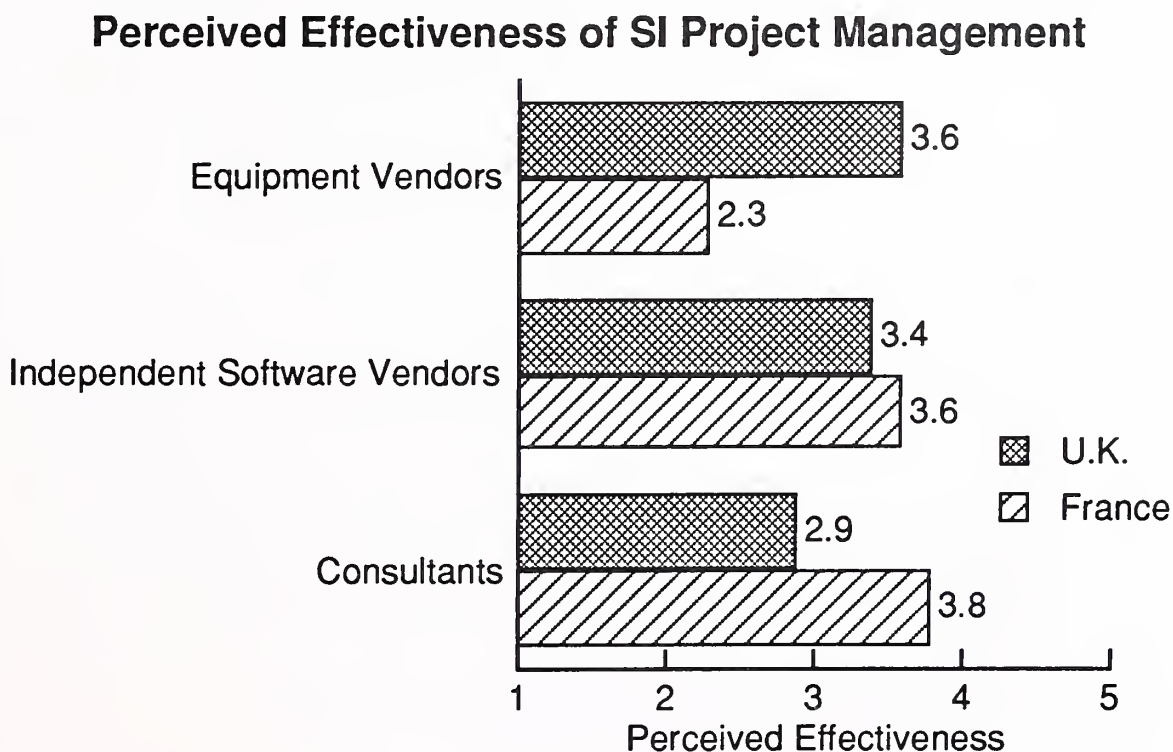
5= Very Suitable

Overall, Equipment Vendors and Independent Software Vendors are considered the most suitable types of vendor as prime contractors for Systems Integration projects within Europe. There are, however, significant national differences. While German and Italian respondents feel that Independent Software Vendors are the most suitable type of organisation as prime contractors, the British showed a strong preference for equipment vendors, while the French favoured consulting firms. In both the U.K. and France, Independent Software Vendors take second place in the rankings.

Part of the explanation for these national differences may lie in the different roles played by Senior Management and IS Management in the project identification and definition process. As noted earlier, the French respondents generally had their projects identified by senior management, while the U.K. projects were more commonly identified by IS management. Systems integration projects identified by senior management are more likely to favour consulting firms as prime contractors. Systems integration projects identified within the IS department are more likely to favour equipment vendors as prime contractors. These generalisations are, of course, subject to many exceptions.

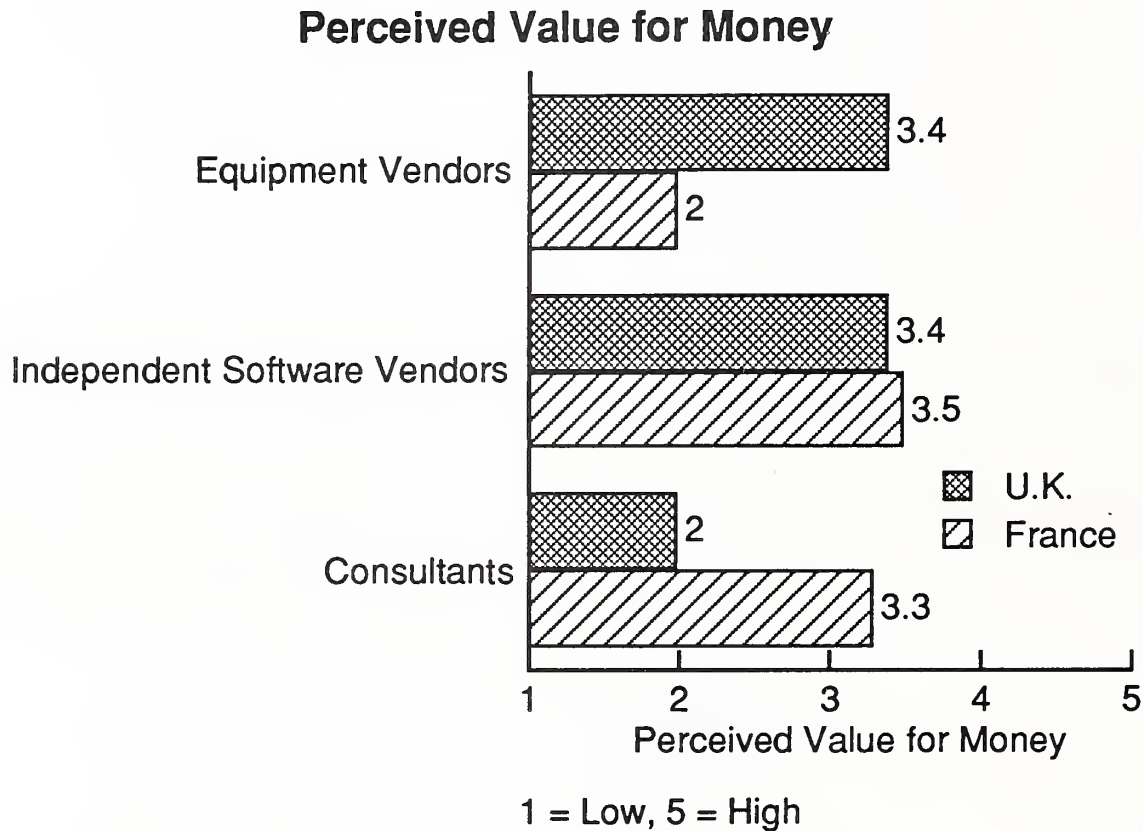
Users' perceptions of the ability of the various categories of vendor to manage large projects are shown in Exhibit IV-4.

EXHIBIT IV-4



Users' views of the effectiveness of different vendors' ability to manage large projects mirror their views on the type of vendor most suitable as prime contractor for systems integration. Again, the French prefer consultants while the British prefer equipment vendors. A change occurs when looking at perceptions of value for money on large projects (Exhibit IV-5). Independent Software Vendors are rated best value for money in both countries, although only by a small margin.

EXHIBIT IV-5



Sample of 15 organisations

This should be a cause for concern in the U.K. software and services industry. U.K. users, like their counterparts elsewhere, gave a very low importance to the hardware platform as a vendor selection measurement, yet they rated equipment vendors above both consultants and software vendors on their suitability ranking. The evidence in the U.K. points towards software vendors being regarded as less suitable for systems integration projects than hardware vendors, but better value for money. This implies that the equipment vendors are setting a price ceiling for systems integration projects that the independent software vendors must stay below to remain competitive.

D

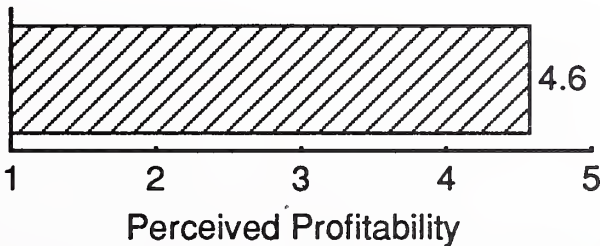
Users Perceive Vendors to Make Excessive Profits

There is a conundrum to be resolved: Users apparently put a low price on their list of priorities when selecting systems integration vendors, yet every vendor knows that negotiating a final price with an acceptable margin can be a difficult process. The question becomes even more acute when it is considered that the key selection criteria (expertise and software packages) are almost vendor uniques, which should therefore be fairly insensitive to price.

The answer lies in users' perceptions of vendors' profitability. Users believe that large systems integration projects are very profitable to their vendors (Exhibit IV-6).

EXHIBIT IV-6

SI Project Profitability—User Perceptions



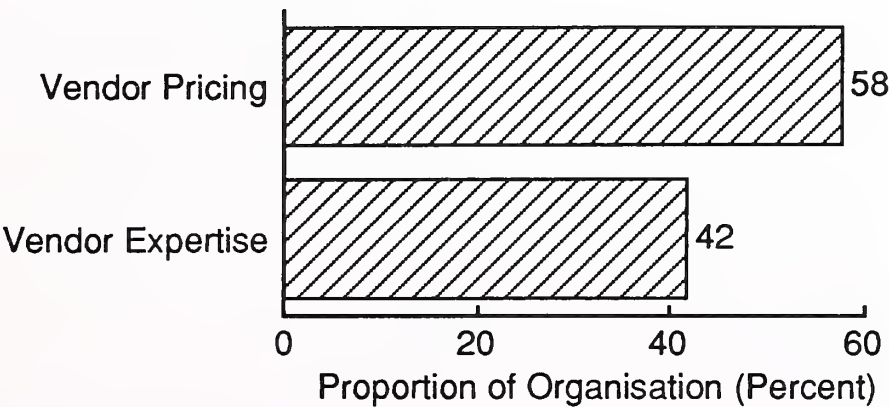
1 = Not Profitable, 5 = Very Profitable

Sample of 15 organisations

Furthermore, they believe that the cause of this profitability has more to do with excess pricing than the justifiable cost of the vendor's expertise (Exhibit IV-7).

EXHIBIT IV-7

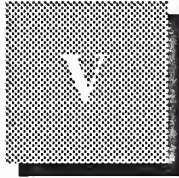
Perceived Reason for High Profitability



Sample of 15 organisations

This mistrust of vendors' pricing needs to be seen alongside another of the vendor selection criteria—risk transfer. One of the reasons why users use contractors is to transfer the financial risk of cost overruns on large projects from themselves to their suppliers. Given the propensity of IS projects to suffer serious cost overruns, it is natural for the purchaser to assume that the vendor is building excess margin into his prices to compensate for such an eventuality, whether true or not.

It is important to note that this pricing tension is likely between any user and contractor. The user is generally not engaged in classic market bargaining because the key purchase criteria (expertise and software) are often vendor uniques. This removes the possibility of making like-for-like comparisons and selecting on cost. Instead the purchaser is often starting from the assumption that ALL his potential contractors are overpriced and will negotiate on that basis. Attempts to play off one supplier against another may be purely negotiating ploys, with the eventual contract winner already decided and the remaining process purely one of manipulating the price down as far as possible.



Systems Integration Contracts— User Management

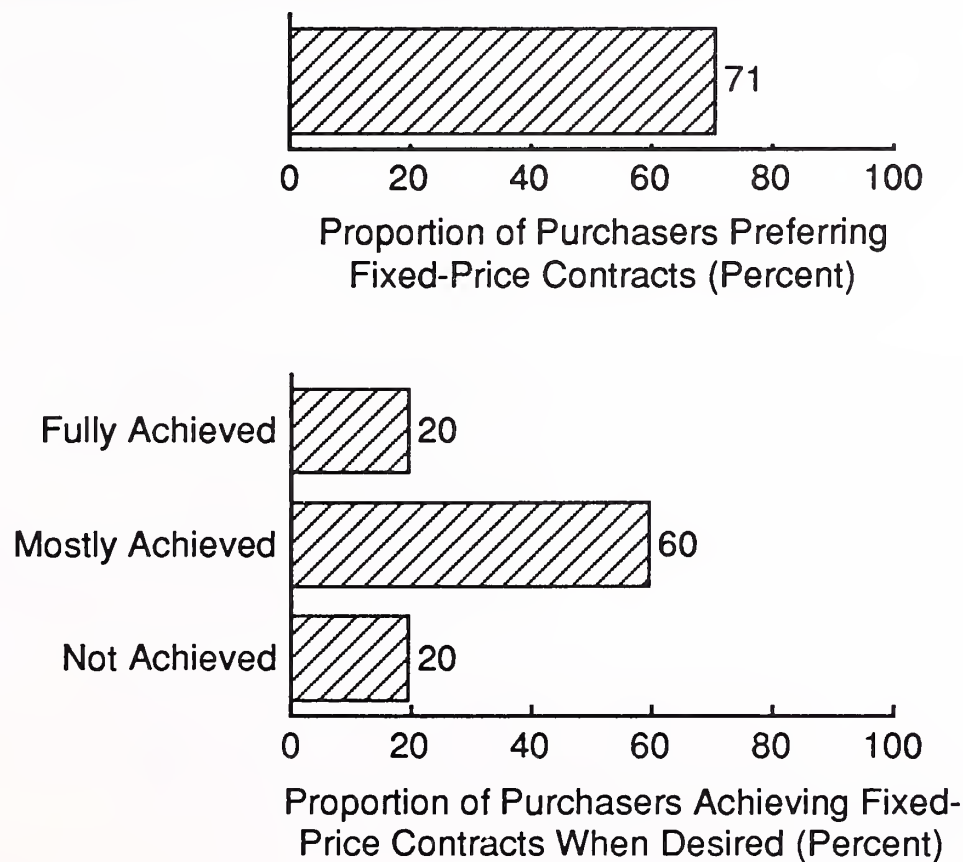
A

Vendor Business Benefits Challenge

Exhibit V-1 considers users' desire for, and ability to achieve, fixed-price contracts.

EXHIBIT V-1

Purchasers' Achievement of Fixed-Price Contracts



Sample of 15 organisations

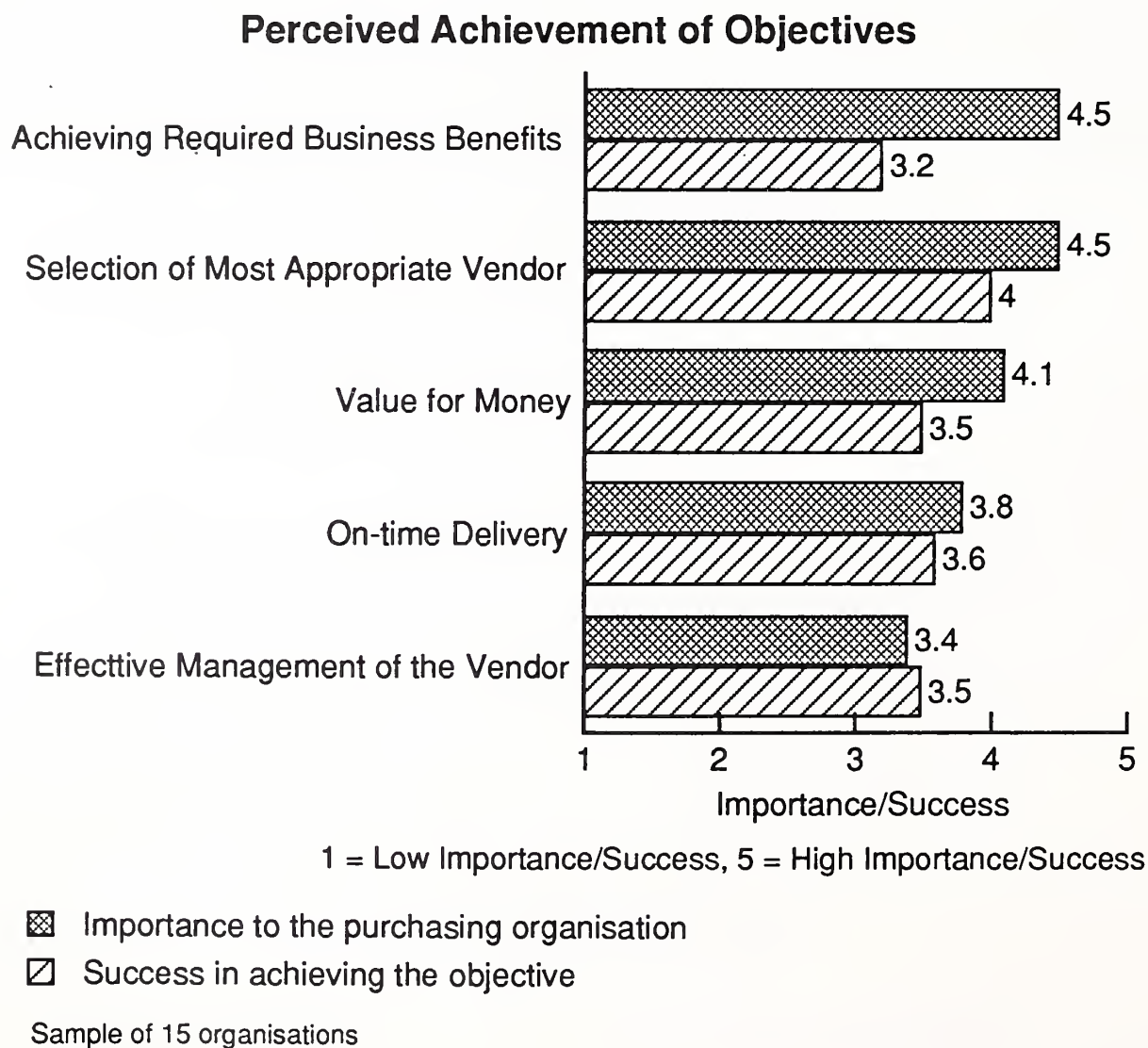
Given the background of pricing tension noted above, it is not surprising that most users prefer fixed-price contracts. Nor is it surprising that they don't always achieve them. Vendors who can offer fixed-price contracts, or appear to do so, will generally have a competitive advantage. Because the purchaser is attempting to use this as a device for controlling project risk as well as cost, there may be opportunities for vendors to profit from this aspect by offering the client a choice of fixed or floating prices to test his priorities between cost and risk.

The more routine aspects of delivering a project are not to be underestimated, however. When asked to name all the phases in the lifecycle of a major systems integration project, users attached greater emphasis to implementation than any other phase apart from the project definition.

This also appeared in Exhibit III-2, where users rated systems implementation the most important requirement of systems integration contractors. Users are clearly very concerned that the vendor should deliver the promised results.

Exhibit V-2 shows that these concerns are well founded.

EXHIBIT V-2

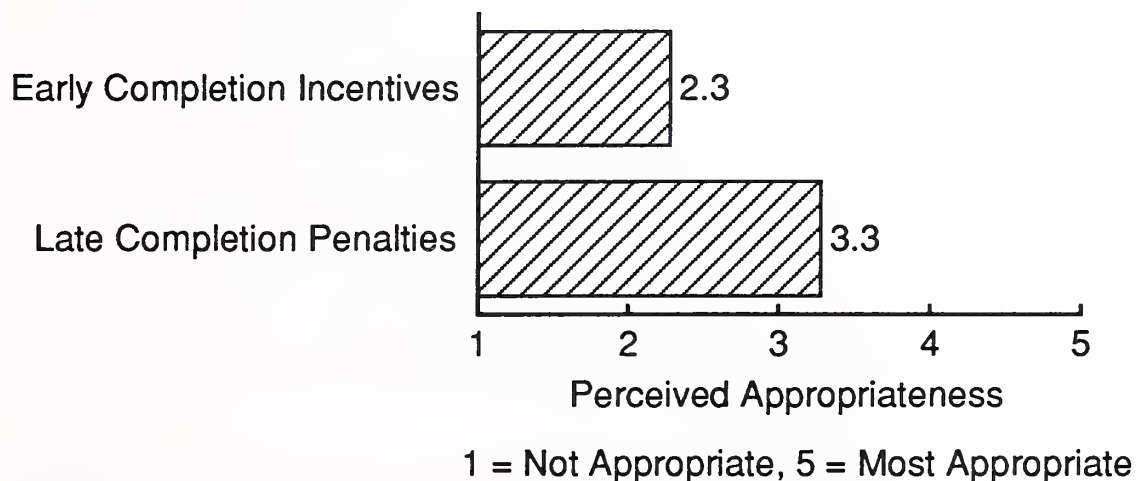


Achieving the required business benefit is considered to be the most important objective in selecting a systems integration vendor, yet is the least satisfactorily achieved. Other studies suggest that this is a real phenomenon. Contractors usually manage to achieve the technical specifications which have been set, but this is often insufficient to achieve the desired business benefits. Clearly there is either a lack of understanding of the relationship between the technical solution and the business problem, or else a failure of communication between the purchaser and vendor.

It remains a challenge for vendors to become more involved in the project identification and specification stages. Only by doing so can vendors take responsibility for ensuring that the business benefits of projects are correctly identified and achieved. Non-IS skills such as business re-engineering are particularly important in enabling vendors to achieve such results.

Techniques such as prototyping and ensuring high levels of end-user involvement may also assist vendors in attaining improved delivery of business benefits.

Users' views on the appropriateness of financial early completion incentives and late completion penalties in achieving on-time delivery of systems integration projects are shown in Exhibit V-3.

EXHIBIT V-3**Financial Penalties and Incentives—User Views**

Sample of 15 organisations

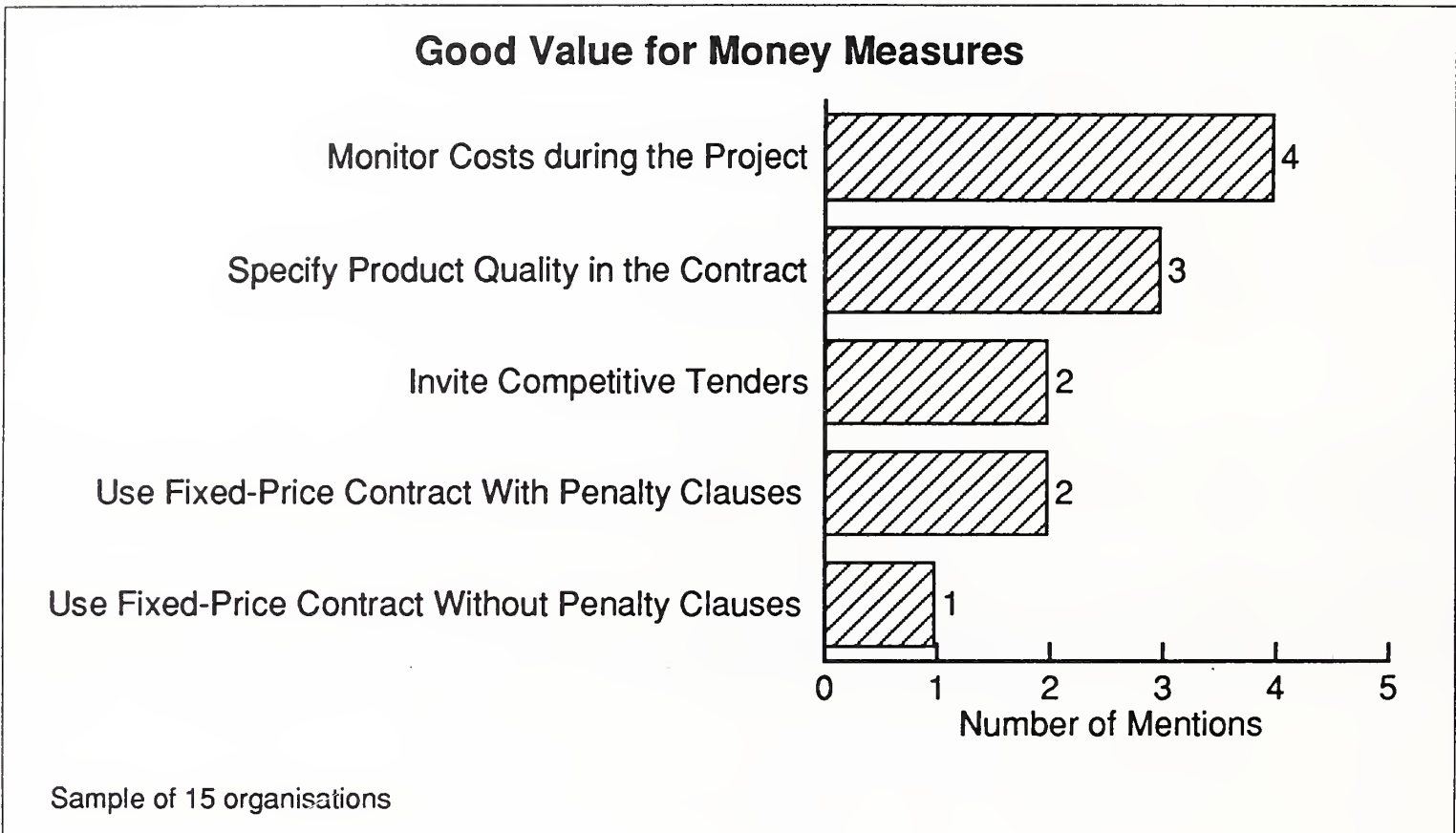
On-time delivery is a relatively important issue and users' perceptions of vendors' high profit margins can be seen in their approach to this issue. Whilst financial incentives for early completion are not seen by users as particularly appropriate, there is significant support for late completion penalties.

B

Project Reviews Ensure Value for Money

Exhibit V-4 lists the measures that users take to ensure that they receive good value for money.

EXHIBIT V-4



Whilst the issues of fixed-price contracts and late delivery penalties are of perennial interest, users see these as only a part of the way in which they obtain value for money from their suppliers. Exhibit V-4 shows some of the other mechanisms by which organisations set out to obtain good value from their suppliers. Although users like fixed-price contracts, they attach even more importance to cost reviews during the contract. As one respondent observed pragmatically:

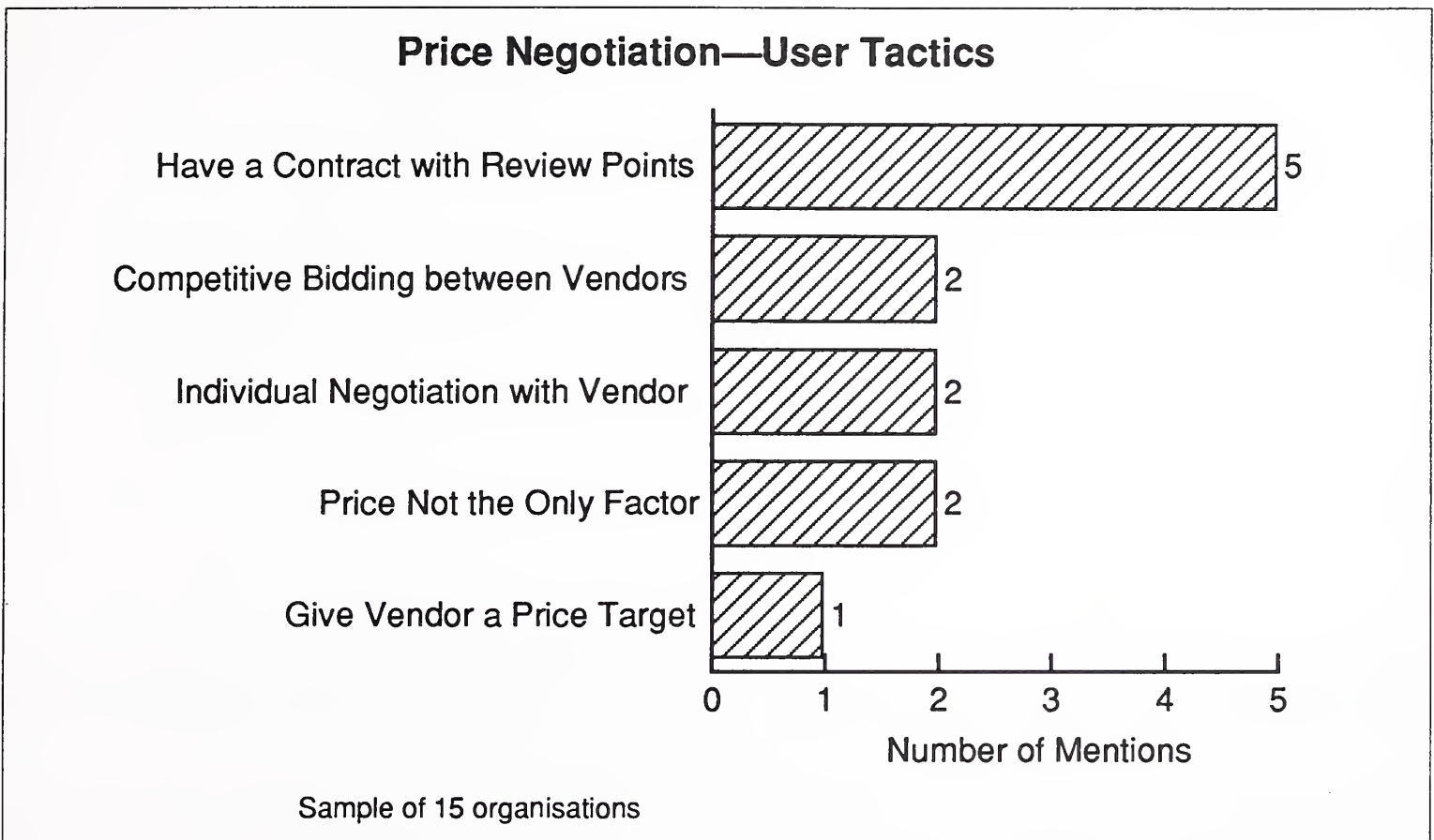
“It’s no good bankrupting the supplier before the project is completed.”

In this case, the user was apparently prepared to pay sums in excess of the agreed contract price if he could be persuaded that otherwise the supplier’s financial viability (and, with it, his own project) was at risk.

This concern for monitoring costs was further highlighted when users were asked how they negotiated prices.

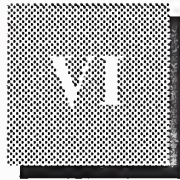
The tactics, reported by users, for negotiating the price of systems integration projects are shown in Exhibit V-5.

EXHIBIT V-5



Setting contracts with review points was by far the most frequently mentioned tactic, and it was significant that two users did not regard price negotiations as particularly significant. At the final bidding stage (as perceived by the purchaser) it is rare to have competitive bids. This bears out the earlier observation that the purchaser's primary preoccupation when buying large systems integration projects is the expertise and software skills of the vendor. Because these are likely to be unique, competitive price comparisons are difficult to obtain.

(Blank)



Vendor Issues and Strategies

The purchasing process has three clear phases, namely:

- Decision to use external systems integration supplier
- Shortlist of potential suppliers based on technical merit
- Final selection of supplier based on commercial considerations.

The decision to use an external supplier for systems integration intimately involves both the nature of the project and the way in which it is conceived within the user organisation.

Once the decision to use an external vendor is made, a shortlist of potential vendors has to be selected from the many available. This tends to be a largely technical process. Having shortlisted the preferred supplier on the basis of mainly technical factors, the final decision often rests on a commercial negotiation of the terms under which the project will be undertaken.

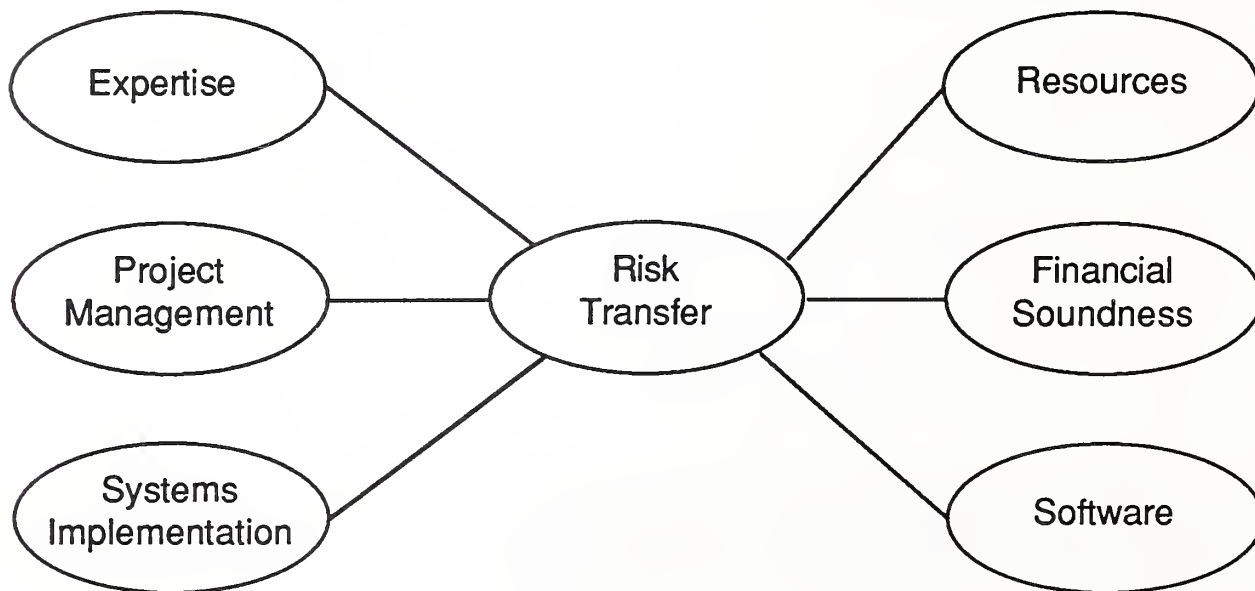
The principal characteristics required from vendors of systems integration projects at different stages in the selection process are listed below:

- Decision to Use IS Contractor
 - Lack of skills internally
 - Lack of resources
 - Risk transfer
 - Time constraints
- Vendor Shortlist
 - Relevant skills
 - Available software
 - Financial strength to absorb risk of offering fixed price contracts
 - Prior experience of the vendor
- Final Selection
 - Responsiveness
 - Willingness to accept risk.

Exhibit VI-1 shows some of the attributes which users seek when hiring a systems integration contractor.

EXHIBIT VI-1

Users' Expectations of Systems Integration Contractors



The common theme from this study is that purchasers of large systems integration projects have an overwhelming concern to obtain software and expertise which is not available within their own organisations. It follows that selection as a prime contractor depends heavily on being able to demonstrate good business knowledge of the area concerned and able to offer an appropriate software solution to the purchaser's concerns. A summary of the key strategies open to vendors is given in Exhibit VI-2.

EXHIBIT VI-2

Vendor Strategies for Success in Winning Systems Integration Contracts

- Vendors must genuinely understand the business issues in their target markets.
- Well-planned software solutions which address users' business needs are essential.
- Vendors need to demonstrate sound project management capability. A formal methodology will help.
- Understanding the client's decision making process is vital. IS management is usually key in vendor selection, but senior management may have already produced a shortlist.
- Vendors must be sensitive to the consultant's role. Consultants are most frequently used when the project is initiated by senior management. Even when not used to define the project, they are used to help select vendors in nearly half of all projects.
- Clients should be offered a choice of fixed or variable-priced contracts to test their priorities between risk transfer and cost saving. They will usually prefer a fixed price contract, but the choice strengthens the vendor's bargaining position.
- Vendors with significant industry expertise should use it to propose innovative solutions to identifiable business problems. This immediately puts the vendor in the driving seat if the project is accepted, and in any event demonstrates business competence for subsequent projects.

Project Management is a key area of concern for many purchasers who want to be confident that their chosen supplier has the necessary controls to ensure that the project is delivered on time and within budget. The use of a formal project management methodology will be reassuring in this respect, but nothing beats a demonstrable track record.

Pricing is an issue only because purchasers believe that vendors are overcharging for their services. There is little attempt to play off one vendor against another because the selection criteria are often unique. When the final decision is made, it is on the basis of the vendor best able to solve the business problem at hand. Only after that decision is made are serious price negotiations started.

Most projects will have been subjected to a cost/benefit analysis which will have defined the value of the project to the user. This can be seen in Exhibit V-2 where cost justification of the project is seen to precede vendor selection in many cases.

Irrespective of the purchaser's focus on solving the problem at hand, most purchasers believe that systems integrators make excess profits. They will therefore try to reduce any price offered to them. Vendors can take advantage of purchasers' propensity for fixed-price contracts by offering a choice of both fixed- and variable-cost contracts. This strengthens the vendor's bargaining position since the purchaser has an alternative if he finds the fixed price too high. Purchasers can generally be expected to favour fixed-price contracts.

The financial stability of the vendor is also important as one of the purchaser's objectives is to transfer the risk of cost overruns to the supplier. This transfer of risk becomes meaningless if the supplier is unable to absorb the overrun. In practice, purchasers are usually aware of the risks and are often prepared to act as underwriters of last resort for a vendor perceived to have a unique solution which is appropriate to the purchaser's business problem.

How projects are sold depends very much on the purchaser. Respondents showed marked national differences in their views of equipment vendors, independent software vendors and consultants as potential prime contractors.

Consultants are used in about half of all assignments to purchase systems integration projects, compared with only one-third at the project definition stage. It is therefore beneficial for vendors to establish good relationships with major consulting firms and maintain a process of positive image management.

Finally, the largest rewards of all are likely to go to those vendors who can propose novel applications of technology to improve business processes, particularly in areas which transcend traditional departmental or corporate boundaries.

